



Environnement et  
Changement climatique Canada

Environment and  
Climate Change Canada

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MIN-224975

**MEMORANDUM TO MINISTER**

**PUBLIC COMMENT PERIOD ON PRELIMINARY GREENHOUSE GAS EMISSIONS**

(For Information)

**PURPOSE**

To provide you with information on Canada's preliminary greenhouse gas (GHG) emission estimates for 2016. The estimates will be published by **January 31, 2018**, for a 30-day public comment period.

**SUMMARY**

- For the first time, preliminary estimates of greenhouse gas (GHG) emission for Canada's national inventory, along with explanatory material, will be posted for a 30-day public comment period. There are no significant changes in emission trends (see **Annex I**, attached).
- In previous years, the data were made public when they were submitted to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, and provinces and territories usually received the information a few months in advance.
- The latest and final GHG data reported by facilities (for the period 2004–2016) collected by the Greenhouse Gas Reporting Program and the overview report (**Annex II**, attached) will also be posted on Canada.ca by January 31, 2018.
- Media attention is expected and communication products will be prepared. The public will be informed of the 30-day comment period via the GHG Inventory webpage on Canada.ca as well as through social media.
- As in previous years, the complete final national greenhouse gas inventory report for 2018 will be submitted to the UNFCCC Secretariat by April 15. At the same time, the executive summary and data will be posted on Canada.ca and the data tables will be placed on Open.Canada.ca.

**CONTEXT AND CURRENT STATUS**

As a signatory to the United Nations Framework Convention on Climate Change, Canada is obligated to prepare an annual national GHG inventory of anthropogenic emissions by sources and removals by sinks, including annual estimates since 1990. This inventory must be submitted to the UNFCCC by April 15 each year.

In the interest of public transparency, preliminary material from the 2018 iteration of Canada's GHG inventory will be posted on Science Alert (<https://ecccdocs.techno-science.ca/en/index.htm>) by January 31 for a 30-day public comment period. Preliminary material will include:

- the executive summary of the national inventory report;
- chapter 2 of the national inventory report (GHG emission trends);

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- chapter 8 of the national inventory report (recalculations and improvements); and
- a complete set of GHG emission tables consistent with those currently posted on open.canada.ca, including national, provincial, and territorial estimates.

At a minimum, text and figures specific to provincial and territorial emissions will be available in both English and French.

Comments received during the 30-day public comment period will be considered, based on their scientific merit, and used to inform improvements to Canada's GHG inventory.

### **HIGHLIGHTS OF THE 2018 NATIONAL INVENTORY REPORT**

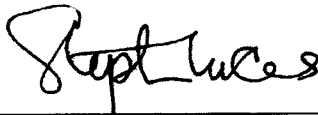
The preliminary national inventory report for 2018 includes improvements which have resulted in lower reported emissions throughout the historical time series. There are no significant changes in emission trends (see Annex I for more detail).

Canada's GHG emissions in 2016 are estimated to be 704 megatonnes (Mt) of carbon dioxide equivalent (CO<sub>2</sub> eq.). This is 28 Mt (or 3.8%) lower than the updated emissions for 2005 (732 Mt).

As a result of the revisions, a 30% reduction in emissions compared to the updated 2005 emission levels amounts to 513 Mt (instead of 517 Mt, which was based on the national inventory report submitted in 2017).

### **NEXT STEPS**

- Provinces and territories will be informed of the 30-day public comment period using established channels (email) and will be invited to review and comment on the preliminary material once it has been made public.
- The recently established Ad-hoc ADM Task Force on National Inventory Report Methods will be provided with more information on methodological improvements.
- Preliminary files will be posted on the Science Access website by January 31 for a 30-day public comment period; the public will be informed via the GHG Inventory webpage on Canada.ca as well as through social media.
- The latest GHG data reported by facilities (2004–2016) and the overview report will also be posted on Canada.ca by January 31.
- Responsive communications material will be developed.
- The national inventory report will be submitted to the UNFCCC Secretariat no later than April 15, 2018. The executive summary will be posted simultaneously on Canada.ca.



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Stephen Lucas  
Deputy Minister  
c.c. Martine Dubuc

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Martine Dubuc  
Associate Deputy Minister  
c.c. Stephen Lucas

**Attachments (2):**

- *Annex I – Canada's 2018 GHG inventory preliminary estimates and trends*
- *Annex II – Overview of reported 2016 emissions (Facility Greenhouse Gas Reporting Program)*

## **BACKGROUND**

### **National inventory report**

Canada ratified the UN Framework Convention on Climate Change (UNFCCC) on December 4, 1992. Under the UNFCCC, Parties that are signatories to Annex I of the Convention must submit to the UNFCCC Secretariat a national inventory by April 15 each year. The inventory includes the national inventory report and common reporting format tables. These are important for tracking progress in meeting Canada's commitments to reduce its GHG emissions and demonstrating Canada's commitment to transparency and accountability.

The revised UNFCCC reporting guidelines for national inventories (adopted in Decision 24/CP.19, at the 19th Conference of the Parties, in 2013) stipulate the contents and scope of the national inventory report and require the use of GHG estimation methods that are consistent with the methodological framework developed by the Intergovernmental Panel on Climate Change (IPCC). The UNFCCC reporting guidelines also commit Parties to the continuous improvement of emission and removal estimates, including the quality of input data and methods. When improvements (which are always described within the national inventory report) are made, they trigger revisions to the estimates for previous years.

The current national inventory report complies with the UNFCCC reporting guidelines on annual inventories and builds upon the results of previous versions, published in 1992, 1994, and yearly from 1996 to 2017. Each inventory edition adds a new year to the time series of emissions (2016 for the 2018 inventory edition) and includes revisions to emission estimates across the time series (1990–2016) arising from improvements to methodologies.

### **Greenhouse Gas Reporting Program**

The Greenhouse Gas Reporting Program was established under the authority of subsection 46(1) of the *Canadian Environmental Protection Act, 1999* and was announced through the publication of the first notice concerning the Program in the *Canada Gazette* in March 2004.

The notice with respect to reporting of greenhouse gases, published annually, requires operators of facilities with GHG emissions above 50 kt CO<sub>2</sub> eq. to report their emissions to the Department each June. Through these notices, the Department communicates its intention to publish the total GHG emissions data by gas by facility.

The Program applies to industrial and other facilities that are the largest emitters of GHGs. It supports a number of objectives:

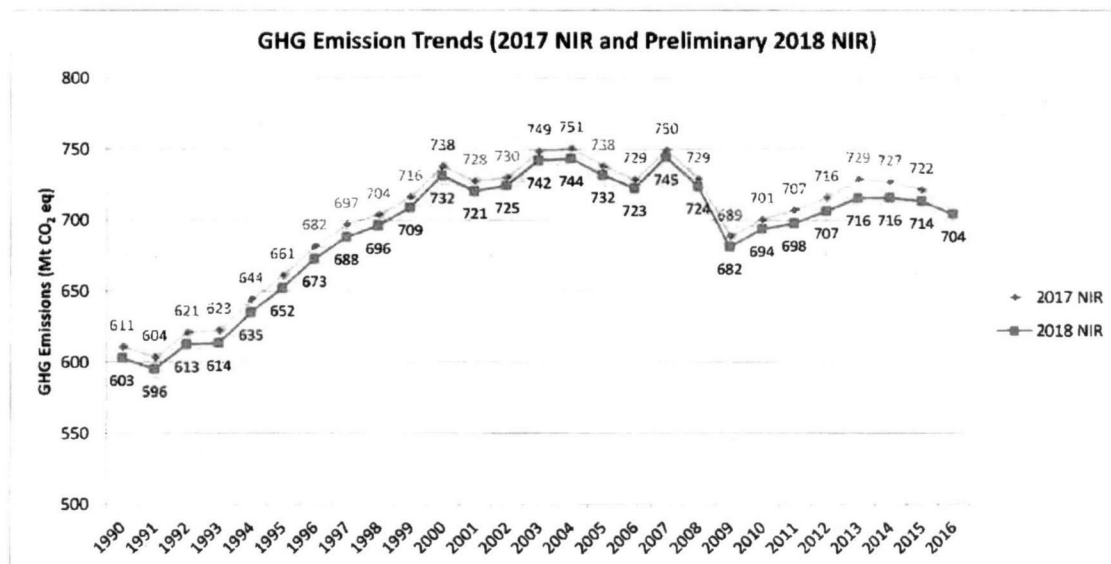
- it provides transparent information to the public on GHG emissions;
- it enhances the level of detail of the national GHG inventory;
- it meets provincial and territorial GHG reporting requirements; and
- it supports the development of regulations.

Thus far, the focus of the Program has been on the facilities with the largest GHG emissions (mostly industrial facilities). Reporting requirements are being expanded to collect detailed data to better serve the national GHG inventory and to enhance the consistency and comparability of reporting by facilities across jurisdictions. The notice outlining the 2017 requirements (due June 1, 2018) represents the first phase of this expansion and includes several key changes (i.e., the reporting threshold has been reduced to 10 kt and it includes expanded reporting for manufacturers of lime, cement, iron and steel, and aluminium, as well as carbon capture, transport, and storage activities).

The facility data are posted on Canada.ca (<https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/facility-reporting.html>), and an overview report and analysis of the reported data and associated trends are also made available.

## ANNEX I

### CANADA'S 2018 GREENHOUSE GAS INVENTORY PRELIMINARY ESTIMATES AND TRENDS



Total emissions have been recalculated downward by 6 Mt for the year 2005 and by 8 Mt for the year 2015.

The revisions that most influence total emissions occurred in Solid Waste Disposal (–6.4 Mt in 2005 and –6.1 Mt in 2015), in Public Electricity and Heat Production (+2.9 Mt in 2005 and +3.3 Mt in 2015), and in Transport (–2.9 Mt in 2005 and –0.3 Mt in 2015). In solid waste, recalculations resulted from updates to the parameters quantifying the degradation of organic matter in landfills and the oxidation of generated methane prior to its release in landfill gas. Recalculations in Public Electricity and Heat Production are the result of the findings of a large study on the percentage of un-oxidized carbon from the combustion of coal in electric power plants, combined with updates to coal consumption for 2015. In Transport, an in-depth assay of 876 gasoline and 268 diesel samples resulted in revised fuel carbon contents and fuel combustion emissions.

A change in data sources has resulted in upward revisions of 1 to 4 Mt in fugitive emissions from upstream oil and gas in recent years.

Although not shown in total emissions, important revisions occurred in net removals in managed forests. Consultations with provinces and territories on post-disturbance forest management practices resulted in replacing the single period during which forest stands destroyed by natural disturbances are excluded from inventory reporting with region-specific values. The incorporation of these region-specific values resulted in a reduction of the net CO<sub>2</sub> sink in managed forests by 29 Mt in 2005 and by 23 Mt in 2015.

The most important decreases in emissions between 2015 and 2016 occurred in fugitive emissions in the oil and gas sector (–5.3 Mt), residential heating and electricity generation (–3.8 Mt and –2.8 Mt, respectively), and transport (–2.5 Mt). These have been partly offset by increases in fuel combustion in upstream oil and gas production (+3.9 Mt), in process emissions from metal production (+1.6 Mt), and in agriculture (+1.0 Mt). Of note, Statistics Canada always revises fuel consumption data for the most recent year; therefore, the current 2016 estimates are subject to changes.